

WHAT IS CLAIMED IS:

1. An active matrix substrate having electrode wiring lines arranged in a matrix form, a plurality of active elements provided at intersections of the electrode wiring lines and a plurality of pixel electrodes connected to the electrode wiring lines via the active elements on an insulating substrate, wherein

the pixel electrodes are formed of a transparent conductive oxide film made of a sol-gel material.

10 2. An active matrix substrate as claimed in claim 1, wherein

no constituent member of the electrode wiring lines and the active elements exists between the pixel electrodes and the active matrix substrate.

15 3. An active matrix substrate as claimed in claim 1, wherein

the pixel electrodes are formed in a process preceding processes of forming the electrode wiring lines and the active elements.

20 4. An active matrix substrate as claimed in claim 1, wherein

the pixel electrodes are treated with heat at a temperature higher than those of the electrode wiring lines and the active elements.

5. An active matrix substrate as claimed in claim 1,  
wherein

the pixel electrodes are principally made of any  
one of indium tin oxide, tin oxide, indium oxide, zinc  
5 oxide, germanium oxide and titanium oxide or a mixture of  
these substances.

6. An active matrix substrate fabricating method for  
fabricating an active matrix substrate having electrode  
wiring lines arranged in a matrix form, a plurality of  
10 active elements provided at intersections of the electrode  
wiring lines and a plurality of pixel electrodes connected  
to the electrode wiring lines via the active elements on an  
insulating substrate, comprising the step of:

15 forming the pixel electrodes of a sol-gel material  
in a process preceding processes of forming the electrode  
wiring lines and the active elements.

7. An active matrix substrate fabricating method for  
fabricating an active matrix substrate having electrode  
wiring lines arranged in a matrix form, a plurality of  
20 active elements provided at intersections of the electrode  
wiring lines and a plurality of pixel electrodes connected  
to the electrode wiring lines via the active elements on an  
insulating substrate, comprising the step of:

25 forming the pixel electrodes by patterning a sol-  
gel material having photosensitivity.

8. An active matrix substrate fabricating method as claimed in claim 7, wherein

a chelating agent for imparting photosensitivity is added to the sol-gel material.

5 9. An active matrix substrate fabricating method as claimed in claim 7, wherein

a photosensitive resin for imparting photosensitivity is added to the sol-gel material.

10. 10. A liquid crystal display device including the active matrix substrate claimed in claim 1.

11. 11. A liquid crystal display device including the active matrix substrate fabricated by the active matrix substrate fabricating method claimed in claim 6.

15 12. A liquid crystal display device including the active matrix substrate fabricated by the active matrix substrate fabricating method claimed in claim 7.

CONFIDENTIAL